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10/586,420	07/19/2006	Maurice Van Eis	33589-US-PCT	4844

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NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC.  
400 TECHNOLOGY SQUARE  
CAMBRIDGE, MA 02139

EXAMINER
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SHTERENGARTS, SAMANTHA L

ART UNIT	PAPER NUMBER
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1626

MAIL DATE	DELIVERY MODE
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12/05/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/586,420	<b>Applicant(s)</b> VAN EIS ET AL.	
	<b>Examiner</b> Samantha L. Shterengarts	<b>Art Unit</b> 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 6,7,9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 8 is/are rejected.
- 7) ☒ Claim(s) 3-5, 8-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>19 July 2006</u>  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

1. The instant application is a national stage entry of PCT/EP05/000501, filed January 19, 2005.
2. Priority under 35 U.S.C. 119(a)-(d) is acknowledged for United Kingdom Application Nos. 0401090.6 and 0401089.8, filed January 19, 2004. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

3. The information disclosure statement filed July 19, 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information lined out has not been considered. The information disclosure statement (IDS) submitted on July 19, 2006 was in compliance with the provisions of 37 CFR 1.97. The IDS documents not lined out were considered. A signed copy of form 1449 is enclosed herewith.

### ***Election/Restrictions***

4. Applicant's election with traverse of Group I, Claims 1-5 and 8-9 in the reply filed on November 7, 2008 is acknowledged. The traversal is on the ground(s) that the special technical feature makes a contribution over the prior art and therefore unity of invention exists. This is not found persuasive for the following reasons.

An international application should relate to only one invention or, if there is more than one invention, the inclusion of those inventions in one international application is only permitted

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if all inventions are so linked as to form a single general inventive concept (PCT Rule 13.1).

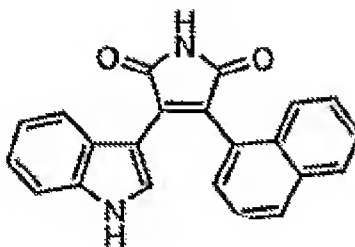
With respect to a group of inventions claimed in an international application, unity of invention exists only when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features.

The claims herein lack unity of invention under PCT rule 13.1 and 13.2 since, under 37 CFR 1.475(a).

Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression “special technical features” shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

Groups I-II lack unity of invention since under 37 CFR 1.475: the technical feature corresponding to the claims is shown below:

This core technical feature is not a special technical feature because it fails to define a contribution over the prior art as can be seen in Albert et al. (WO 02/38561), which discloses the same core as in instant Claim 1. Below is a figure of the prior art from (WO 02/38561):



Therefore, claims 1-10 are not so linked as to form a single general inventive concept and there is a lack of unity of invention because they lack a special technical feature as the technical

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feature present fails to define a contribution over the prior art. The core technical feature that is being claimed is taught by the prior art. Accordingly, unity of invention is considered to be lacking and restriction of the invention in accordance with the rules of unity of invention is considered to be proper.

Applicant's representative asserts that the mandatory substituent at instant position  $R_1$  should be considered in the special technical feature because all of the compounds of the application fall within the definition of claim 1 and all compounds have no substituent in position 3, as in Albert et al. (WO 02/38561), and have a mandatory substituent in position 6. Firstly, it is important to note that a contribution over the prior art does not only apply to anticipation, but also to obviousness. Obvious variants, such as positional isomers, can exist where the substituent in mandatory position 6 can occur in position 3 as long as there is motivation to make the aforementioned modification. Secondly, the mandatory substituent at position 6 in the instant claims is not considered part of the special technical feature because it is not part of a non-variable, or in other words, unchanging core. Position 6 comprises substituent  $R_1$ , which is  $-(CH_2)_n-NR_3R_4-$ . In this case,  $n$  can be 0, 1, or 2 and  $R_3$  and  $R_4$  can independently be H or  $C_{1-4}$  alkyl; or  $R_3$  and  $R_4$  form together with the nitrogen atom to which they are bound a heterocyclic residue. This substituent can be made into plethora of combinations and is therefore not part of the non-variable core that makes up the special technical feature.

Therefore, since the claims do not relate to a single general inventive concept under PCT Rule 13.1 and lack the same or corresponding special technical feature, the claims lack unity of invention and should be limited to only a product or a method of use.

Furthermore, in regards to Groups I-II even if unity of invention under 37 CFR 1.475(a)

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is not considered lacking, *which it is as evidenced above*, unity is lacking under 37 CFR

1.475(b). Under 37 CFR 1.475(b): A national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations:

- (1) A product and a process specially adapted for the manufacture of said product; or
- (2) A product and a process of use of said product; or
- (3) A product, a process specially adapted for the manufacture of said product, and a use of said product; or
- (4) A process and an apparatus or means specifically designed for carrying out the said process; or
- (5) A product, a process specially adapted for the manufacture of said product, and an apparatus or means specifically designed for carrying out the said process.

And according to 37 CFR 1.475(c): if an application contains claims to more or less than one of the combinations of categories of invention set forth in paragraph 37 CFR 1.475(b), unity of invention might not be present.

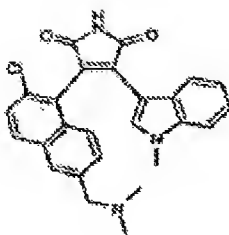
Therefore, since the claims are drawn to compounds and compositions, which do not make a contribution over the prior art, as well as *various* methods of using the compounds of formula I, as in claims 6, 7, and 10, and according to 37 CFR 1.475(e): the determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claims.

The claims, therefore, lack unity of invention.

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The requirement is still deemed proper and is therefore made FINAL.

5. As per MPEP 803.02, the Examiner will determine whether the entire scope of the claims is patentable. Applicants' elected species of the following compound (example 1):



makes a contribution over the prior art of record. Therefore, according to MPEP 803.02: should the elected species appear allowable, the search of the Markush-type claim will be extended. If the search is extended and a non-elected species is not found allowable, the Markush-type claim shall be rejected and claimed to the nonelected invention held withdrawn from further consideration. The search of the Markush-type claim has been extended to include all products of the Formula (I). As a non-elected species has been found not allowable, the Markush-type claims have been rejected and claims to the nonelected invention held withdrawn from further consideration. It has been determined that the entire scope claimed is not patentable.

#### *Status of the Claims*

6. Currently, claims 1-10 are pending in the instant application. Claims 6-7 and 10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a non-elected invention. Claim 9 is withdrawn for incorrect multiple dependence (see claim objections section below). Claims 1-5 and 8 (in full) read on an elected invention and are therefore under consideration in the instant application.

### ***Specification***

7. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

#### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.



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- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

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- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing: See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

### *Claim Objections*

8. Claim 9 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot reference different features of two sets of claims. Claims 1 and 2 are referenced numerous times within claim 9. The first time is acceptable. The second instance where claim 9 recites the limitation, "wherein R<sub>a</sub>, R<sub>b</sub>, R<sub>c</sub>, R<sub>d</sub>, and R<sub>e</sub> are defined in claim

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1 and claim 2" is not appropriate because these variables are defined differently in claims 1 and 2. The same is true for the third instance of claim 1 and 2 following formula III. See MPEP § 608.01(n). Accordingly, claim 9 has not been further treated on the merits.

9. Claim 3-5 and 8 are objected to because of the following informalities: Claim 3: In a Markush series, the word "and" should separate the second to last and last members of a Markush series. Here, no "and" exists between the last two members of the Markush series. Claims 4, 5, 8: It appears that the word claim should be "claims" so that the limitation reads, "according to any of one *claims* 1 to 3." Claim 5: It appears that the last word of claim 5 should be "thereof" rather than "therefor." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.\

10. Claims 1-2, 4-5, and 8 are rejected under 35 U.S.C. 112 1<sup>st</sup> paragraph as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The MPEP states that the purpose of the written description requirement is to ensure that the inventor has possession, as of the filing date of the application, of the specific subject matter later claimed by him. The courts have stated:

"To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that "the inventor

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invented the claimed invention." *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997); *In re Gostelli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) ("[T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed."). Thus, an applicant complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention." *Lockwood*, 107 F.3d at 1572, 41 USPQ2d at 1966." *Regents of the University of California v. Eli Lilly & Co.*, 43 USPQ2d 1398.

Further, for a broad generic claim, the specification must provide adequate written description to identify the genus of the claim. In *Regents of the University of California v. Eli Lilly & Co.* the court stated:

"A written description of an invention involving a chemical genus, like a description of a chemical species, 'requires a precise definition, such as by structure, formula, [or] chemical name,' of the claimed subject matter sufficient to distinguish it from other materials." *Fiers*, 984 F.2d at 1171, 25 USPQ2d 1601; *In re Smythe*, 480 F.2d 1376, 1383, 178 USPQ 279, 284 (CCPA 1973) ("In other cases, particularly but not necessarily, chemical cases, where there is unpredictability in performance of certain species or subcombinations other than those specifically enumerated, one skilled in the art may be found not to have been placed in possession of a genus ...") *Regents of the University of California v. Eli Lilly & Co.*, 43 USPQ2d 1398.

The MPEP states that for a generic claim the genus can be adequately described if the disclosure presents a sufficient number of representative species that encompass the genus. MPEP § 2163. If the genus has a substantial variance, the disclosure must describe a sufficient variety of species to reflect the variation within that genus. See MPEP § 2163. Although the MPEP does not define what constitute a sufficient number of representative species, the courts have indicated what do not constitute a representative number of species to adequately describe a broad genus. In *Gostelli*, the courts determined that the disclosure of two chemical compounds within a subgenus did not describe that subgenus. *In re Gostelli*, 872, F.2d at 1012, 10 USPQ2d at 1618.

The Guidelines for Examination of Patent Applications Under 35 USC 112, ¶1, "Written Description" Requirement (Federal Register, Vol. 66, No. 4, pg. 1105, column 3), in accordance with MPEP § 2163, specifically state that for each claim drawn to a genus the written description requirement may be satisfied through sufficient description of a representative number of species by a) actual reduction to practice; b) reduction to drawings or structural chemical formulas; c) disclosure of relevant, identifying characteristics (i.e. structure) by functional characteristics coupled with a known or disclosed correlation between function and structure. The analysis of whether the specification complies with the written description requirement calls for the examiner to compare the scope of the claim with the scope of the description to determine whether applicant has demonstrated possession of the claimed invention (Federal Register, Vol. 66, No. 4, p. 1105, 3<sup>rd</sup> column, 3<sup>rd</sup> paragraph). Below is such a comparison.

**I. Scope of Claims**

Compounds of Formula (I) as found in claim 1.

The variables R<sub>a</sub> and R<sub>2</sub> are claimed broader than what is supported by the disclosure (see section II below).

**II. Scope of Disclosure**

Reduction to Practice:

The compounds reduced to practice support the following substituents for the aforementioned variables:

R<sub>a</sub> is H or C<sub>1-4</sub> alkyl

R<sub>2</sub> is H, halogen, C<sub>1-4</sub> alkyl, NO<sub>2</sub>

Reduction to Structure or Chemical Formulas

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The only disclosure, in addition to the species reduced to practice, is in the form of lists of possible optional substituents for R<sub>a</sub> and R<sub>2</sub>. This type of disclosure is not viewed to be a representation of any of the species it encompasses. A “laundry list” disclosure of every possible moiety does not constitute a written description of every species in a genus because it would not “reasonably lead” those skilled in the art to any particular species. MPEP 2163.I.A. and *Fujikawa v. Wattanasin*, 93 F. 3d 1559, 1571, 39 USPQ2d 1895, 1905 (Fed. Cir. 1996). Therefore, there is no disclosure of species (e.g. by reduction to structural/chemical formulae) in addition to those reduced to practice.

The embodiments of the instant invention as exemplified in the specification do not contain embodiments wherein substituents R<sub>a</sub> and R<sub>2</sub> are:

R<sub>a</sub> is not C<sub>1-4</sub>alkyl substituted by OH, NH<sub>2</sub>, NHC<sub>1-4</sub>alkyl or N(di-C<sub>1-4</sub>alkyl)<sub>2</sub>;

R<sub>2</sub> is not CF<sub>3</sub>, OH, SH, NH<sub>2</sub>, C<sub>1-4</sub>alkoxy, C<sub>1-4</sub>alkylthio, NHC<sub>1-4</sub>alkyl, N(di-C<sub>1-4</sub>alkyl)<sub>2</sub> or CN;

#### Correlation between Structure and Function:

A correlation between structure and function, for the instantly claimed genus of compounds, is neither known in the art nor disclosed in the specification. Thus, it is not understood what specific structural elements are essential for the activity of the instantly claimed compounds for the purposes of PKC inhibition.

### **III. Analysis of Fulfillment of Written Description Requirement:**

The structural/activity relationship (SAR) for binding and activity is elucidated upon analysis of IC<sub>50</sub> data of multiple compounds with various types of structural

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modifications. These types of studies provide insight into the structural limitations that are required for activity, i.e., specific structural elements essential for the claimed activity. In the absence of such correlation, it is not possible to determine what structural modifications will allow for the preservation of the desired activity.

In conclusion, (i) substantial structural variation exists in the genus/subgenera embraced by claims 1-2, 4-5, and 8; (ii) disclosure of species supporting genus is limited to compounds reduced to practice, which scope is not commensurate with the scope of genus/subgenera claimed; (iii) common structural attributes of the genus/subgenera, combined with a correlation between structure and function, is neither disclosed in the instant application nor commonly known in the art. Thus, the specification fails to provide adequate written description for the genus of compounds claimed and does not reasonably convey to one skilled in the relevant art that the invention(s), at the time the application was filed, had possession of the entire scope of the claimed invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-2, 4-5, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evenou et al. (WO 03/082859) and Albert et al. (US 2003/0069424).

*Determining the scope and contents of the prior art*

Evenou et al. and Albert et al. disclose various positional isomers of the instantly claimed compounds.

*Ascertaining the differences between the prior art and the claims at issue*

Evenou et al. discloses various positional isomers where the heterocyclic residue is on position 3 rather than position 6 of the naphthalene ring. Example 20 on page 6 of the specification, as well as the compounds of Table 2, examples 21-28, where R is a residue of formula (b) are positional isomers of the instant claims.

Albert et al. discloses various positional isomers where the heterocyclic residue is on position 3 rather than position 6 of the naphthalene ring. Compounds 39, 40, 41, 42, and 43 in table 2 on page 8 are positional isomers of the instant claims.

Both of these references also disclose the pharmaceutical compositions for PKC inhibition.

*Resolving the level of ordinary skill in the pertinent art - Prima Facie Case of Obviousness*

With respect to positional isomers, MPEP 2144.09.II states, "Compounds which are



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position isomers (compounds having the same radicals in physically different positions on the same nucleus) or homologs (compounds differing regularly by the successive addition of the same chemical group, e.g., by -CH<sub>2</sub>- groups) are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. In *re Wilder*, 563 F.2d 457, 195USPQ 426 (CCPA 1977).

In positional isomerism, a functional group changes position on the chain or ring. As claimed, these two positional isomers have identical intended uses as well. As stated in *In re Norris* 179 F.2d 970, 84 U.S.P.Q. 458 (C.C.P.A. 1970), a novel useful compound that is isomeric with the prior art compound is unpatentable unless it possesses some unobvious or unexpected beneficial property not possessed by the prior art compound. In other words, if the positional isomers of the instant application produced unexpected results that would not be obvious to one of ordinary skill in the art, they would be patentably distinct; however, there is no evidence of such results in the instant application.

One of ordinary skill would be motivated to make the aforementioned positional modification required to arrive at the instant invention with reasonable expectation for success of obtaining a compound that is active for PKC inhibition because Evenou et al. and Albert et al. disclose the same utility in WO 03/082859 and US 2003/0069424. The motivation to make this modification would be to make alternate compounds for the same quoted purpose.

12. Claims 1-2, 4-5, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. [Davis, Peter D. Inhibitors of protein kinase C.1. 2,3-bisarylmalimides. *Journal of Medicinal Chemistry*. 35 (1) (1992) 177-184.]

Determining the scope and contents of the prior art

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Davis et al. discloses obvious variants of the instantly claimed compounds.

*Ascertaining the differences between the prior art and the claims at issue*

Davis et al. discloses compounds and compositions as PKC inhibitors. In table III on page 179, Davis et al. teaches an arylindolylmaleimide compound for the inhibition of PKC. The Ar substituent can be naphthyl in examples 19 and 20. In table V on page 180, Davis et al. teaches phenylindolylmaleimides where the phenyl ring is substituted by —NH<sub>2</sub>, as in examples 63 and 69.

*Resolving the level of ordinary skill in the pertinent art - Prima Facie Case of Obviousness*

It would be obvious for one of ordinary skill in the art to combine the teachings of Davis, in tables III and V, and assume that if the phenyl ring substituted at any position with an amine group would have PKC inhibition activity, and a naphthyl ring in the same compound would have PKC inhibition activity, then a naphthyl ring with an amine substituent, as instantly claimed, would also retain the same activity.

One of ordinary skill would be motivated to make the aforementioned modification of substituting one aryl ring for another required to arrive at the instant invention with reasonable expectation for success of obtaining a compound that is active for PKC inhibition based on this disclosure. The motivation to make this modification would be to make alternate compounds for the same quoted purpose.

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined

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application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1-2, 4-5, and 8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12-15 and 18 of copending application no. 11/708,840 and claims 5-6 and 8 of copending application no. 10/586,421. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

An obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but an examined application claim not is patentably distinct from the reference claim(s) because the examined claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985). Although the conflicting claims are not identical, they are not patentably distinct from each other because instant claims 1-2, 4-5, and 8 are drawn to positional isomers of 12-15 and 18 of copending application no. 11/708,840 and claims 5-6 and 8 of copending application no. 10/586,421.

In claims 12-15 and 18 of copending application no. 11/708,840, where R is a radical of formula (b), these claims are drawn to positional isomers of compounds and compositions of instant claims 1-2, 4-5, and 8. See positional isomers discussion section 11 above.

In claims 5-6 and 8 of copending application no. 10/586,421, where R is a radical of formula (a), these claims are drawn to positional isomers of compounds and compositions of instant claims 1-2, 4-5, and 8. See positional isomers discussion section 11 above.

14. Claims 1-2, 4-5, and 8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 9 of U.S. Patent No. 7, 220, 774, and claim 4 of U.S. Patent No. 7, 358, 253.

An obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but an examined application claim is not patentably distinct from the reference claim(s) because the examined claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985). Although the conflicting claims are not identical, they are not patentably distinct from each other because instant claims 1-2, 4-5, and 8 are drawn to positional isomers of claims 1-9 of U.S. Patent No. 7, 220, 774, and claim 4 of U.S. Patent No. 7, 358, 253.

In claims 1-9 of U.S. Patent No. 7, 220, 774, where R is a radical of formula (b), these claims are drawn to positional isomers of compounds and compositions of instant claims 1-2, 4-5, and 8. See positional isomers discussion section 11 above.

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In claim 4 of U.S. Patent No. 7, 358, 253, where case II exists and R is a radical of formula (b), these claims are drawn to positional isomers of compositions of instant claims 5 and 8. See positional isomers discussion section 11 above.

***Conclusion***

15. No claims are allowed.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samantha Shterengarts whose telephone number is (571)270-5316. The examiner can normally be reached on Monday thru Thursday 9-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph K. McKane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Samantha L. Shterengarts/  
Examiner, Art Unit 1626

/Kamal A Saeed/  
Primary Examiner, Art Unit 1626